REMARKS

The amendments and remarks address the Office Action dated March 20, 2003. At the time of the Office Action, Claims 1-10 were pending in this application. This amendment is timely filed.

In the Office Action, claims 1-6 and 8-10 were rejected and claim 7 was objected to as being dependent upon a rejected base claim. Claims 3 and 8 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1-6 were rejected under 35 U.S.C. §102(b), and claims 9 and 10 were rejected under 35 U.S.C § 103(a). The rejections are set out in more detail below.

I. Allowable Subject Matter

The Office Action noted that claim 7 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, claim 22 has been added and incorporates all the limitations of original claim 7 and original claim 1. Allowance of claim 22 is respectfully requested.

II. Amendments To The Specification

The paragraph beginning at page 9, line 1, of the specification has been amended to correct a typographical error. The intended reading of the paragraph is inherent from the context of the paragraph.

III. Rejections Under 35 U.S.C. § 112

In the Office Action, claims 3 and 8 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Office Action noted that there is insufficient basis for the limitations set forth in the claims. Appropriate amendments have been made and Applicant respectfully requests that the Examiner withdraw these rejections.

IV. Review of Amended Claim 1

Prior to addressing the rejections on art, a brief review of the features recited by claim 1 is appropriate. Claim 1 is directed to a composite part having an integrated flow channel and recites an elongated foam core and at least one fabric layer secured to the

elongated foam core. The fabric layer extends along a first elongated side thereof and encloses an elongated channel between the first elongated side of the foam core and the fabric layer. Claim 1 also recites a flow channel media disposed in the elongated channel where the flow channel media has less resistance to a flow of resin as compared to the fabric layer. Thus, resin introduced within the elongated channel under pressure will substantially flow along a length of the elongated side.

V. Rejections under 35 U.S.C. §102(b)

Turning to the rejections on art, claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,664,518 to Lewit et al. ("Lewit"). Applicant respectfully submits that this reference does not teach or suggest that which is recited by Claim 1.

In support of these rejections, page 2 of the Office Action alleges that:

> Figure 4 of Lewit shows a composite part having an integrated flow channel, comprising an elongated foam core 21; a flow channel medium attached to the elongated foam core and extending along a first elongated side thereof, the flow channel medium defining interstices 19 for the passage of resin; at least one fabric layer 13 secured to the elongated foam core, and enclosing the elongated of the foam core, including the flow channel medium 15. Figure 4 further shows the fabric layer 13 encloses at least a second and third elongated side of the foam core, each of said second and third elongated sides adjoining the first elongated side. Figure 4 also shows the composite part comprising fabric tab portions extending from the second and third elongated side.

However, Lewit merely discloses a fiber layer 13 attached to a non-woven fiber layer 15. (Lewit, col. 9, lines 41-42). The fiber layer 13 and the non-woven fiber layer 15 are simply fabric layers that border a structural foam 21. These layers do not enclose an elongated channel, and therefore, neither can provide a channel media disposed in the elongated channel.

Figures 4 and 5 of Lewit illustrate the non-woven fiber layer 15 as one continuous layer that extends over the top, sides, and flaps 55. Thus, if resin was introduced under pressure in non-woven fiber layer 15, then the resin would flow out of non-woven fiber layer 15 and exit structure 51 at the extremities of flaps 55. Therefore, resin introduced

within the non-woven fiber layer 15 under pressure will not substantially flow along a length of an elongated side, but will instead flow out of structure 51.

VI. Rejections under 35 U.S.C. §103(a)

Turning now to the rejections of obviousness under §103(a), claims 9 and 10 were rejected under 35 U.S.C § 103(a) as being unpatentable over Lewit as applied in claim 1 above, further in view of U.S. Patent No. 3,703,739 to Young et al. ("Young"). In particular, the Office Action alleges that:

> Lewit teaches the flow channel medium formed from a non-woven fabric. Lewit is silent as to the three dimensional web of the flow channel medium. Young teaches a non-woven web formed from a three dimensional matrix of nylon fibers (column 1, lines 28-31). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the three dimensional plastic matrix as the flow channel medium motivated by the desire to facilitate the flow of the resin.
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> With regard to claim 9, since Lewit as modified by Young is using the same material to form the flow channel medium of the composite part, i.e., three dimensional non-woven fibers, it is the examiner's position that the porosity would be inherently present within the range set forth in the claims.

Young discloses surface working pads that are retained on a driving disc. In conjunction with the driving disc, the surface working pads are described as being used for scrubbing floors. While the examiner asserts that Young teaches a non-woven web formed from a three dimensional matrix of nylon fibers at column 1, lines 28-31, that portion of Young's specification specifically discusses floor maintenance machines having pads used for scrubbing, stripping, polishing, and buffing. Such a discussion does not provide any motivation to combine a surface working pad with the teachings of Lewit, a molded composite structure and method for making the same, to produce the subject matter recited in claim 1.

Furthermore, Young's discussion does not mention or suggest that surface working pads can provide a medium for the flow of any substance. Consequently, Young does not teach or suggest a three-dimensional plastic matrix that functions as a flow channel medium or a flow channel medium having about 50 to 90% open space.

The lack of any discussion regarding a surface working pad as a medium for flow of any substance teaches away from combining a surface working pad with Lewit to produce the subject matter of claims 9 and 10. Thus, Lewit and Young, individually or in combination, do not teach or suggest the subject matter of claims 1, 9, and 10.

VII. Comments on New Claims 19-27

Claims 19-21 and 23-27 have been added to present alternative embodiments. No new matter is added. Claim 19-21 and 23-27 are believed to be allowable because of their dependence on an allowable base claim and because of the further recited features.

Claim 19 recites that the fabric layer has a porosity that selectively permits a predetermined amount of resin to escape from the flow channel along an elongated length. Claim 20 recites, as an additional limitation, that the elongated channel is disposed exclusively along the first elongated side. Claim 21 recites an alternative embodiment in which the flow channel media is disposed exclusively along the first elongated side. Allowance of claims 19-21 is respectfully requested.

Independent claims 22 and 23 recite that the flow channel media is bounded by a second fabric layer interposed between the foam core and the flow channel media. The Examiner has already conceded that "[n]one of the prior art discloses or suggests the composite part wherein the flow channel media is bounded by a second fabric layer interposed between the foam core and the flow channel media". Thus, allowance of new independent claims 22 and 23 is respectfully requested.

Claims 24-27 are also believed to be allowable because of their dependence on allowable base claim 23 and because of further features recited therein. Claim 24 recites that the flow channel media has less resistance to a flow of resin as compared to the second fabric layer. Claim 25 and 26 recite limitations similar to those in claims 9 and 10 and the arguments made previously are similarly applicable. Claim 27 recites similar limitations to those in claim 19 and the arguments made previously are similarly applicable. Thus, allowance of claims 24-27 is respectfully requested.

VI. Conclusion

Applicant has made every effort to present claims which distinguish over the cited references, and it is believed that all claims are in condition for allowance. Therefore, Applicant invites the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicant respectfully requests reconsideration and prompt allowance of the pending claims.

Respectfully submitted,

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